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WHAT IS CLAIMED IS:

1   1.   A method for reducing artifacts in a video stream, comprising the steps of:

2   decoding the video stream; and

3   adding noise to at least one pixel in a picture in the video stream following decoding in

4   an amount correlated to additive noise of pixels in at least one prior picture.

1   2.   The method according to claim 1 wherein the at least one prior picture

2   comprises a previously displayed picture.

1   3.   The method according to claim 1 where the at least one prior picture comprises

2   a previously decoded picture

1   4.   The method according to claim 1 wherein the amount of noise is correlated in

2   accordance with a correlation factor α having a value such that $0 \leq \alpha \leq 1$.

1   5.   The method according to claim 1 wherein the amount of noise is correlated

2   using an instantiation of a Finite Impulse Response (FIR) filter.

1   6.   The method according to claim 1 wherein the amount of noise is correlated

2   using an approximation of an Infinite Impulse Response (IIR) filter.

1   7.   The method according to claim 1 further comprising the steps of:

2   extracting bit stream information from the video stream; and

3   determining strength of the added noise in accordance with the bit stream information.

1   8.   The method according to claim 7 wherein the bit stream information comprises

2   a quantization parameter.

1   9.   The method according to claim 1 wherein the added noise is Gaussian noise.

1   10.   The method according to claim 1 wherein the added noise is Laplacian noise.

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1   11.   A method for reducing artifacts in a video stream, comprising the steps of:

2   decoding the video stream; and

3   adding noise to at least one pixel in a picture in the video stream following decoding in

4   an amount correlated to additive noise of at least one other pixel in the picture.

1   12.   A decoder arrangement for decoding a coded video stream to yield reduced

2   artifacts, comprising:

3   a video decoder for decoding an incoming coded video stream to yield decoded

4   pictures ;

5   a reference picture store for storing at least one previously decoded picture for use by

6   the decoder in decoding future pictures,

7   a noise generator noise for generating noise for addition to at least one pixel in a

8   decoded picture in an amount correlated to additive noise of at least one pixel in at least one

9   prior picture;

10   a summing block for summing the noise generated by the noise generator with a

11   decoded picture from the decoder; and

12   a clipper for clipping the summed noise and decoded picture.

1   13.   The decoder arrangement according to claim 12 wherein the noise generator

2   implements an instantiation of a Finite Impulse Response filter.

1   14.   The decoder arrangement according to claim 12 wherein the noise generator

2   implements an approximation of an Infinite Impulse Response filter.

1   15.   The decoder arrangement according to claim 12 wherein the noise generator

2   generates noise in accordance with decoded pictures and bit stream information supplied from

3   the decoder.

1   16.   The decoder arrangement according to claim 12 wherein the bit stream

2   information comprises a quantization parameter.

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1   17.   The decoder arrangement according to claim 12 further including a noise

2   picture store for storing the noise information for subsequent use by the noise generator.

1   18.   The decoder arrangement method according to claim 12 wherein the noise

2   generator adds Gaussian noise.

1   19.   The decoder arrangement method according to claim 12 wherein the noise

2   generator adds Laplacian noise.

1   20. A decoder arrangement for decoding a coded video stream to yield reduced

2   artifacts, comprising:

3   a video decoder for decoding an incoming coded video stream to yield decoded

4   pictures ;

5   a reference picture store for at least one storing at least one previously decoded picture

6   for use by the decoder in decoding future pictures,

7   a noise generator noise for generating noise in accordance with decoded pictures and

8   bit stream information from the decoder for addition to at least one pixel in decoded in an

9   amount correlated to additive noise of at least one pixel in a prior picture;

10   a summing block for summing the noise generated by the noise generator with a

11   decoded picture from the decoder; and

12   a clipper for clipping the summed noise and decoded picture .

1   21.   The decoder arrangement according to claim 20 wherein the bit stream

2   information comprises a quantization parameter.

1   22.   The decoder arrangement according to claim 20 wherein the noise generator

2   implements an instantiation of a Finite Impulse Response filter.

1   23.   The decoder arrangement according to claim 20 wherein the noise generator

2   implements an approximation of an Infinite Impulse Response filter.

1   24.   The decoder arrangement according to claim 20 further including a noise
2   picture store for storing the noise information for subsequent use by the noise generator.

1   25.   The decoder arrangement method according to claim 20 wherein the noise
2   generator adds Gaussian noise.

1   26.   The decoder arrangement method according to claim 20 wherein the noise
2   generator adds Laplacian noise.

1   27.   A decoder arrangement for decoding a coded video stream to yield reduced
2   artifacts, comprising:
3   a video decoder for decoding an incoming coded video stream to yield decoded
4   pictures ;
5   a reference picture store for at least one storing picture previously decoded by the
6   decoder for use by the decoder in decoding future pictures,
7   a noise generator noise for generating noise for addition to at least one pixel in a
8   decoded picture in an amount correlated to additive noise of pixels in a prior picture; .
9   a noise picture store for storing the noise information for subsequent use by the noise
10   generator;
11   a summing block for summing the noise generated by the noise generator with a
12   decoded picture from the decoder;
13   a clipper for clipping the summed noise and decoded picture.
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1   28.   The decoder arrangement according to claim 27 wherein the noise generator
2.   implements an instantiation of a Finite Impulse Response filter. .

1   29.   The decoder arrangement according to claim 27 wherein the noise generator
2   implements an approximation of an Infinite Impulse Response filter.

1   30.   The decoder arrangement method according to claim 27 wherein the noise
2   generator adds Gaussian noise.

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1   31.   The decoder arrangement method according to claim 27 wherein the noise

2   generator adds Laplacian noise.

1   32.   A decoder arrangement for decoding a coded video stream to yield reduced

2   artifacts, comprising:

3   a video decoder for decoding an incoming coded video stream to yield decoded

4   pictures ;

5   a reference picture store for storing at least one previously decoded picture for use by

6   the decoder in decoding future pictures,

7   a noise generator noise for generating noise for addition to at least one pixel in a

8   decoded picture in an amount correlated to additive noise of at least one pixel in the picture;

9   a summing block for summing the noise generated by the noise generator with a

10   decoded picture from the decoder; and

11   a clipper for clipping the summed noise and decoded picture.